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Intervening in the Lives of Internally Displaced People in Colombia

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INTERVENING IN THE LIVES OF INTERNALLY DISPLACED PEOPLE IN
COLOMBIA

A Thesis Presented

by

AMY CARBONE

Submitted to the Graduate School of the
University of Massachusetts Amherst in partial fulfillment
Of the requirements for the degree of

Master of Architecture

May 2016

Department of Architecture

INTERVENING IN THE LIVES OF INTERNALLY DISPLACED PEOPLE IN
COLOMBIA

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Chair, Department of Architecture

DEDICATION:

To Chris

ABSTRACT

INTERVENING IN THE LIVES OF INTERNALLY DISPLACED PEOPLE IN COLOMBIA

MAY 2016

AMY CARBONE, B.S., THE OHIO STATE UNIVERSITY

M.A.R.C.H., UNIVERSITY OF MASSACHUSETTS AMHERST

Directed by Professor Kathleen Lugosch

Over the past fifty years, civil war has held a relentless grip on Colombia. Aside from the staggering numbers of casualties that have resulted, millions have been internally displaced and unwilling to return home. Many are fleeing from forced military recruitment of youths, sexual violence, kidnapping and murder. After Syria, Colombia has one of the highest populations of Internally Displaced People (IDP): 5,841,040, as of December 2015. It is unknown how many more refugees are not officially registered¹. The majority of the IDP population migrates from rural villages and towns to large cities, such as Bogotá and Medellín, where there are opportunities for safety, income and improvised shelter.²

Referencing existing models for Colombian housing and shelter for IDPs and street kids, this research examines the needs of the displaced population and creates a set of criteria for a long-term, integrative housing solution. This thesis focuses on internally displaced youths and women in the Southern-Pacific region of Colombia, as they make up the largest portion of registered IDPs and

¹ "Colombia." *UNHCR News*. N.p., n.d. Web. 21 Apr. 2016. <<http://www.unhcr.org/pages/49e492ad6.html>>.

² Ibid

refugees in Colombia.³ The goal of the project is to design the user's progression through a system of increasingly supportive levels: "Entrance to the shelter," "Full-time residence," "Reintegration to society." The site and program encourage commensalism, or relationship where one part benefits from the other without causing harm, with the surrounding community. This thesis also references studies of community-based design, low-cost and sustainable housing, transitional shelters, and homeless communities.

³ "Colombia." *UNHCR News*. N.p., n.d. Web. 21 Apr. 2016. <<http://www.unhcr.org/pages/49e492ad6.html>>.

TABLE OF CONTENTS

	Page
ABSTRACT	v
LIST OF FIGURES	vii
CHAPTER	
1. INTRODUCTION	1
1.1 Overview	1
1.2 Project Goals and Description	5
2. LITERATURE REVIEWS	7
2.1 Introduction	7
2.2 Background of Colombia	7
2.2.1 Geography and Demographics	7
2.2.2 History of Violence	9
2.3 Displacement in Colombia	10
2.4 Studies of Relevant Shelter Typologies	13
2.4.1 Colombian IDP Shelters	13
2.4.2 Homeless Shelters	16
3. PRECEDENT STUDIES	18
3.1 Introduction	18
3.2 Mixed Use Programs	18
3.2.1 Moerkerke Medicare and Neighborhood Facility	18
3.2.2 New Carver Apartments	21
3.3 Micro Housing and Shelters	23
3.3.1 SEED_Haiti	23
3.3.2 Day Laborer Station	26
3.3.3 Rolling Huts	27
3.4 Precedent Study Conclusion	29
4. DESIGN PROCESS	30
4.1 Site Selection	30
4.2 Concept and Program	32
4.2.1 Introduction	32
4.2.2 System: Collector, Hive and Colony	32
4.2.3 Sample Families	35
4.3 Design and Analysis	36
4.3.1 Case Study: Camila's Journey	36
4.3.1.1 Collector	36
4.3.1.2 Hive	40
4.3.1.3 Colony	45
4.3.2 Materials and Construction	50
4.4 Conclusion	53
BIBLIOGRAPHY	54

LIST OF FIGURES

Figure	Page
1. IDP and Refugee Rates. Source: IDMC	1
2. Map of Internal Displacement. Source: IDMC	2
3. Colombian Internal Displacement. Source: IDMC	3
4. 2015 Planning Figures. Source: UNHCR	4
5. Map of S. America. Source: www.emapsworld.com.....	8
6. Map of Colombia. Source: www.mapsofworld.com	8
7. Colombia Demographics. Source: Author	8
8. Colombia IDP Regions. Source: UNHCR	12
9. Colombia IDP Shelters. Source: UNHCR	14
10. Moerkerke Medicare Facility Exterior. Source: archdaily.com.....	18
11. Moerkerke Medicare Facility Interior Program. Source: archdaily.com	20
12. New Carver Apartments Exterior. Source: www.mmaltzan.com	21
13. NCA Schematic Design. Source: www.mmaltzan.com.....	22
14. NCA Axon. Source: www.mmaltzan.com	23
15. Shipping Containers to Haiti. Source: Author	24
16. SEED_Haiti. Source: buildipedia.com	25
17. Diagram of Use. Source: Author.....	25
18. Day Labor Station Prototype. Source: www.lizogbu.com	26
19. Day Labor Station. Source: www.lizogbu.com.....	27
20. Rolling Huts. Source: www.olsonkundig.com	28
21. Colombia IDP Regions. Source: UNHCR	30

22. Map of Valle Del Cauca. Source: worldatlas.com	30
23. Map of Popayan Climate. Source: worldatlas.com	31
24. Diagram of System. Source: Author	33
25. Map of System. Source: Author	34
26. Map of Popayan Climate. Source: worldatlas.com	31
27. Colombian Family 2. Source: UNHCR, edited by author	35
28. Colombian Family 3. Source: UNHCR, edited by author	36
29. Collector Perspective. Source: Author	37
30. Map of System. Source: Author	38
31. Map of System. Source: Author	38
32. Collector Site surroundings. Source: Author	38
33. Collector Plan. Source: Author	39
34. Collector Section. Source: Author	40
35. Collector Plan. Source: Author	41
36. Zoom Map of System. Source: Author	41
37. Exterior Hive Axon. Source: Author	41
38. Hive Dorm Layouts. Source: Author	42
39. Hive First Floor Plan. Source: Author	43
40. Hive Second Floor Plan. Source: Author	44
41. Interior Hive. Source: Author	44
42. Zoom Map of Systems. Source: Author	46
43. Colony Sites. Source: Author	47
44. Colony Exterior. Source: Author	47

45. Colony Plan. Source: Author	48
46. Colony Interior. Source: Author	49
47. Colony Unit Layouts. Source: Author	49
48. Building Materials. Source: Author	51
49. Hive Section. Source: Author.....	52
50. Shelter Signage. Source: Author	52

CHAPTER 1

INTRODUCTION

1.1 Overview

According to the United Nations High Commissioner for Refugees (UNHCR), “the growing number of refugees around the world is overshadowed by the even greater numbers of internally displaced people, or IDPs, who have not crossed an international border in search of shelter and safety.”⁴ An internally displaced person is a refugee who remains within the boundaries of their home country. Populations of people, worldwide, displaced by conflict and natural disasters have been steadily rising as of 2011 and are now at an all-time high.⁵ The graph below illustrates the number of IDPs, refugees, and IDPs aided by UNHCR, from 1989 to present.

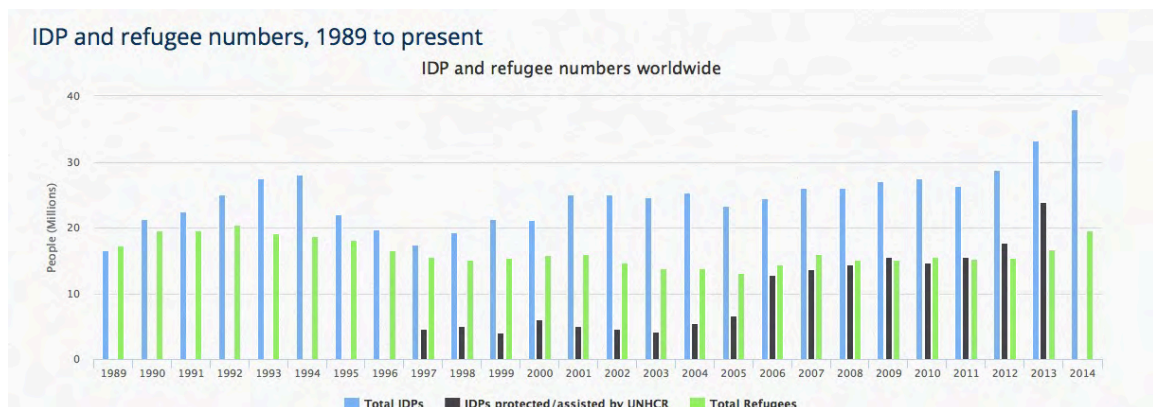


Figure 1. IDP and Refugee Rates. Source: IDMC

⁴ "Colombia." *UNHCR News*. N.p., n.d. Web. 21 Apr. 2016. <<http://www.unhcr.org/pages/49e492ad6.html>>.

⁵ "IDMC » Colombia IDP Figures Analysis." *IDMC » Colombia IDP Figures Analysis*. IDMC, n.d. Web. 21 Apr. 2016.



Figure 3: Colombian Internal Displacement. Source IDMC

A study conducted by the Internal Displacement Monitoring Centre notes, “52.3% of IDPs are women.”⁹ The United Nations Children’s Fund (UNICEF) notes “An estimated 40% of the displaced population are children... figures record 33% of IDPs as Afro- Colombians and 36% as Indigenous.” These two groups make up 9% and 3% of Colombia’s population, respectively.¹⁰ IDMC statistics show that the top five Colombian departments with the most displacement are Valle del Cauca, Nariño, Antioquia, Cauca , and Chocó. These regions are all located on the Southern Pacific coast.¹¹ These figures have led this thesis’ design to focus on a solution for IDP women and children in the Southern Pacific region of Colombia, as they are the most heavily affected group.

⁹ "IDMC » Colombia IDP Figures Analysis." *IDMC » Colombia IDP Figures Analysis*. IDMC, n.d. Web. 21 Apr. 2016.

¹⁰ "Colombia Situation Newsletter." *Human Rights Documents Online* (2013): n. pag. *UNICEF Colombia Mid-Year SitRep*. UNICEF, July 2013. Web. 21 Apr. 2016.

¹¹ *Ibid.*

UNHCR 2015 planning figures for Colombia					
Type of population	Origin	January 2015		December 2015	
		Total in country	Of whom assisted by UNHCR	Total in country	Of whom assisted by UNHCR
Refugees	Cuba	70	10	70	10
	Nicaragua	20	-	20	-
	Various	150	30	140	30
	Venezuela (Bolivarian Republic of)	30	20	50	40
Asylum-seekers	Cuba	20	20	20	20
	Syrian Arab Rep.	-	-	10	10
	Various	10	10	20	20
	Venezuela (Bolivarian Republic of)	20	20	30	30
Returnee arrivals during year (ex-refugees)	Colombia	50	50	100	100
Internally displaced	Colombia	5,740,530	425,340	5,840,590	410,400
Stateless	Stateless	10	-	10	-
Total		5,740,890	425,510	5,841,040	410,650

Figure 4: 2015 Planning Figures. Source: UNHCR

As Table 1 demonstrates, the IDP population is growing faster than the government can provide assistance. It shows in December 2015, there were 5,840,590 IDPs in Colombia, yet UNHCR was only assisting 410,400 of the population. This is due to limited resources in terms of the number and the location of facilities.¹² A majority of the facilities are placed in large cities, such as Bogotá and Medellín, because about 80% of all IDPs migrate from rural areas to the city.¹³ UNCHR states, “the main priorities for IDP operations continue to be prevention, immediate response and life-saving actions and durable solutions; maintaining cross-cutting policies on age, gender and diversity, as well as addressing registry and land issues.”¹⁴ This thesis focused on “life-saving actions and durable solutions” as priority through its design.

¹² "Colombia." *UNHCR News*. N.p., n.d. Web. 21 Apr. 2016. <<http://www.unhcr.org/pages/49e492ad6.html>>.

¹³ Ibid.

¹⁴ Ibid.

1.2 Project goals and descriptions

This thesis is a design proposal for the housing of internally displaced people in Colombia. The primary goal of the project is to provide IDPs with a safe haven that equips them with the tools they need to develop skills and become more independent. Through this project, IDPs will have access to basic living quarters, health and community amenities, and job training. The program is designed to be linear and supportive; each user begins their journey at the local outposts moving on to live in the main building, then advancing to more independent, locally placed living units. The independent residents are encouraged return to the main building to take advantage of the amenities, and could eventually reintegrate fully into society.

Sara Feldman, Julie Freccero, and Kim Seelinger, authors of *Safe Haven: Sheltering Displaced Persons from Sexual and Gender-Based Violence, Colombia* stated: "IDPs in Colombia typically face grinding poverty, whether in the cities or the countryside. They have few prospects for work, education, or decent housing as displaced persons often face discrimination."¹⁵ For this reason, it is important for the program to not only have a positive effect on the intended users, but the community in which the program exists, in order to gain local support. The city's residents can enjoy the community programs available within the main building. In addition, the transportable units will colonize land within the surrounding neighborhoods, creating a more complete urban edge.

¹⁵ Feldman, Sara, Julie Freccero, and Kim Seelinger. " Safe Haven: Sheltering Displaced Persons from Sexual and Gender-Based Violence" *UNHCR News*. UNHCR, May 2013. Web. 18 Apr. 2016.

Although this thesis focuses on Colombia's population of internally displaced persons, the program suggests solutions for homeless and refugee housing throughout the world. An additional goal is for this work to serve as a prototype for other nations seeking a housing solution that creatively reintegrates IDPs back into society via the use of a graduated design approach.

CHAPTER 2

LITERATURE REVIEWS

2.1 Introduction

In order to understand the needs of the population for which this proposal is intended, underlying problems must be interrogated. This review of the literature is divided into three sections: Colombia's history, displacement in Colombia, and studies of relevant shelter types. The first section explores the causes and effects of the country's longstanding history of violence, its geography, and relevant demographics. The second section expands upon a detrimental effect of this violence: internal displacement. The third section outlines shelter models for different, yet related populations: IDPs, homeless people, and street children.

2.2 Background of Colombia

2.2.1 Geography and demographics

Colombia is located at the Northwestern tip of South America. On the western side of the country is the Pacific Ocean, and it is flanked by Venezuela, Brazil, Ecuador, and Peru. The Andes Mountain Range divides Colombia into eastern and western regions, and two great rivers, the Magdalena and the Cauca, run alongside the range. The rivers and valleys created by the Andes make the pacific coast an extremely productive agricultural area. Additionally, volcanic activity is prominent in the southwestern region.¹⁶

¹⁶ "Colombia History Timeline." *Colombia Time Line Chronological Timetable of Events*. World Atlas, n.d. Web. 21 Apr. 2016.



Figure 5. Map of South America

Source: www.emapsworld.com



Figure 6. Map of Colombia

Source: www.mapsofworld.com

As of 2013, Colombia's population was approximately 47 million, and the country's density about 40 people/km. Colombia was under Spanish rule in the 1500s, and they introduced Africans to the population as slave labor.¹⁷ These factors have influenced the demographic makeup, as the chart below shows.

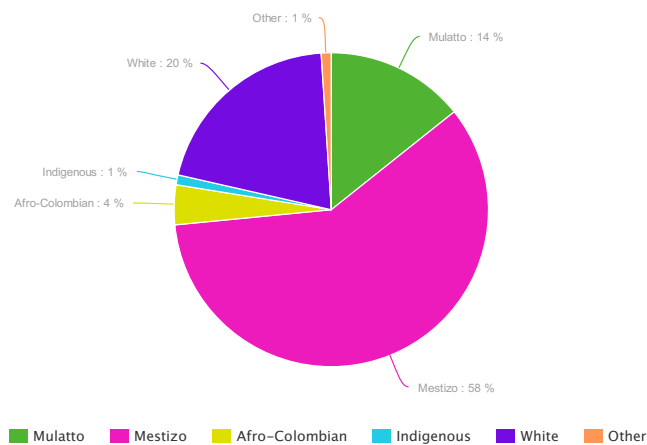


Figure 7. Colombia Demographics. Source: Author

¹⁷ *ibid*

“Mestizo” accounts for the majority of the population, and it is defined as a person of Indigenous and European decent. In general, the poorer, rural towns are more heavily populated with Indigenous and Afro-Colombian peoples, while the bigger cities are predominately Mestizo and White.¹⁸

2.2.2 History of Violence

For almost 50 years, civil war involving Colombian security forces, guerilla groups, paramilitaries, and narcotics traffickers, resulting in millions of casualties and displacing millions more. “La Violencia” is a period, starting in 1946, of intense political feud between Liberal and Conservative parties. The violence spread to rural areas of the country, causing the citizens to take one side or the other and form militia groups.¹⁹ The civil war ended in the 1960s with the formation of the National Front, collaboration between the Liberal and Conservative parties, but a few guerilla groups remained and continue to play key roles in Colombia’s conflict, today. The most influential of these groups are leftist organizations FARC (Revolutionary Armed Forces of Colombia) and ELN (National Liberation Army).²⁰ According to the Human Rights Center of the University of California Berkeley,

“Both the FARC and the ELN claim to represent the rural poor against Colombia’s wealthy classes and oppose the privatization of natural resources, US influence in Colombia, multinational corporations, and

¹⁸ “Colombia History Timeline.” *Colombia Time Line Chronological Timetable of Events*. World Atlas, n.d. Web. 21 Apr. 2016.

¹⁹ “Military.” *La Violencia (1948-66)*. N.p., n.d. Web. 21 Apr. 2016. <<http://www.globalsecurity.org/military/world/war/la-violencia.htm>>.

²⁰ *Council on Foreign Relations*. Council on Foreign Relations, n.d. Web. 21 Apr. 2016. <<http://www.cfr.org/colombia/farc-eln-colombias-left-wing-guerrillas/p9272>>.

rightist violence. However, they are viewed as having evolved over time from ideological organizations to groups focused on self- perpetuation and control of territory and populations.”²¹

In the 1980s, drug trafficking, primarily cocaine, spurred more violence between the government, guerrilla groups, and traffickers. There was much corruption, as drug groups would use terror to increase bargaining power with the government.²² Much of the drug trade was located in coastal, rural towns, because of the possibility of shipping from their ports. To combat the guerrilla violence, citizens organized “self-defense groups,” which later joined drug cartel death squads to form “right-wing paramilitary groups.”²³

Since the formation of these groups and the conflict between them, there have been cycles of peace talks, cease-fire orders, and violent outbursts. The disputes have crossed Colombia’s borders, into Ecuador and Venezuela, because guerillas have made camps on their territories.²⁴ There has yet to be a viable solution for the violence or the associated aftermath.

2.3 Displacement in Colombia

According to the United Nations High Commissioner for Refugees (UNHCR), an internally displaced person is a refugee who remains inside their

²¹ Feldman, Sara, Julie Freccero, and Kim Seelinger. "Safe Haven: Case Study, Colombia." *UNHCR News*. UNHCR, May 2013. Web. 18 Apr. 2016.

²² Colombia History Timeline." *Colombia Time Line Chronological Timetable of Events*. World Atlas, n.d. Web. 21 Apr. 2016.

²³ Feldman, Sara, Julie Freccero, and Kim Seelinger. "Safe Haven: Case Study, Colombia." *UNHCR News*. UNHCR, May 2013. Web. 18 Apr. 2016.

²⁴ Colombia History Timeline." *Colombia Time Line Chronological Timetable of Events*. World Atlas, n.d. Web. 21 Apr. 2016.

home country.²⁵ Two different types of displacement plague Colombia's people: individual and mass displacement. Individual displacement, the most common form, occurs when a single person or family flee as a response to violence. Typically, a large number of families leave for the same reason, independent of other families who are also leaving. Mass displacement occurs in after large-scale event, such as a bombing or massacre. This kind of instance might cause an entire village or group to flee together.²⁶

The government started tracking the population in 1985, and from 1985 to 2015, the estimated total of IDPs is about 5.8 million. On average, this data indicates that there have been 300,000 new IDPs each year.²⁷ In other terms, "more than one in ten Colombians have at some point in their lives been forced to flee their homes as a result of violence, or fear of it, related to the armed conflict."²⁸ This total does not account for those who are seeking asylum but have not yet been registered as an official IDP with Colombia's Victims Registry.²⁹

The main pattern of displacement is from rural to urban, or coastal towns to large cities, because a majority of the conflict occurs in the rural areas of the country. Most travel to large cities and live in slums, while a small fraction disperse in nearby rural towns. The departments of Cauca and Valle del Cauca

²⁵ "Colombia." *UNHCR News*. N.p., n.d. Web. 21 Apr. 2016. <<http://www.unhcr.org/pages/49e492ad6.html>>.

²⁶ "IDMC » Colombia IDP Figures Analysis." *IDMC » Colombia IDP Figures Analysis*. IDMC, n.d. Web. 21 Apr. 2016.

²⁷ "Colombia." *UNHCR News*. N.p., n.d. Web. 21 Apr. 2016. <<http://www.unhcr.org/pages/49e492ad6.html>>.

²⁸ "IDMC » Colombia IDP Figures Analysis." *IDMC » Colombia IDP Figures Analysis*. IDMC, n.d. Web. 21 Apr. 2016.

²⁹ "Colombia." *UNHCR News*. N.p., n.d. Web. 21 Apr. 2016. <<http://www.unhcr.org/pages/49e492ad6.html>>.

produce the highest numbers of IDPs.³⁰ The map shown below highlights these two regions in dark yellow, while the lighter yellow regions produce IDPs as well.



Figure 8: Colombia IDP Regions: UNHCR

Conflict and hostile situations have been the principal causes of displacement in Colombia. According to the Norwegian Refugee Council, NRC, more than half of displacements in 2012 were caused by military confrontation, and the FARC and the ELN caused nearly two-thirds of this fraction.³¹ The conflict between guerrilla groups and the government cause not only displacement, but also a plague of side effects, which often force people from their homes. Civilians run the risk of encountering landmines, as this is a popular guerrilla tactic. According to UNHCR these groups also seek out children to

³⁰ IDMC » Colombia IDP Figures Analysis." *IDMC » Colombia IDP Figures Analysis*. IDMC, n.d. Web. 21 Apr. 2016.

³¹ Ibid.

recruit them into their ranks.³² Additionally, guerrilla and paramilitary members have propagated sexual violence against the women in the areas they occupy. Unfortunately, the rural areas already affected by armed conflict are also prone to natural disasters such as floods, earthquakes, and landslides.³³

IDPs face many more challenges after they have fled their homes. The NRC states “a 2010 survey by the civil society-led monitoring commission on internal displacement found that 94 percent of IDPs were living below the poverty line, and 77 percent in extreme poverty.”³⁴ The government does not have nearly the resources to meet the needs of or officially register the growing numbers of IDPs.³⁵ In turn, many do not receive medical or social service assistance at all. Women coming from displaced households are even more vulnerable, because many IDP women are vulnerable to sexual abuse and therefore require psychological aid, but do not have access to it. Children IDPs often go without schooling for long periods of time. The violence from their hometown prevents them from going to school, and the shelters they flee to may not provide education. Such poor options may lead them to flee to a new and more opportunistic area.

2.4 Studies of Relevant Shelter Typologies

2.4.1 Colombian IDP shelters

The UNHCR has opened a number of shelters for IDPs throughout the

³² "Colombia." *UNHCR News*. N.p., n.d. Web. 21 Apr. 2016. <<http://www.unhcr.org/pages/49e492ad6.html>>.

³³ IDMC » Colombia IDP Figures Analysis." *IDMC » Colombia IDP Figures Analysis*. IDMC, n.d. Web. 21 Apr. 2016.

³⁴ Ibid.

³⁵ "Colombia." *UNHCR News*. N.p., n.d. Web. 21 Apr. 2016. <<http://www.unhcr.org/pages/49e492ad6.html>>.

country, located in the larger cities to which IDPs normally flee. In conjunction with the UNHCR and the Human Rights Center of the University of California Berkeley, Sara Feldman, Julie Freccero, and Kim Seelinger wrote a dissertation entitled *Safe Haven: Sheltering Displaced Persons from Sexual and Gender-Based Violence*. The piece includes a case study of the IDP shelters in Colombia, and offers important insight on the conditions and procedures of existing shelters.³⁶ Testimonies from staff and IDPs are useful, because they provide opinions about the functionality of the shelters. The map below shows the locations of the UNHCR IDP shelters highlighted in the paper.



Figure 9: Colombian IDP Shelters: UNHCR

³⁶ Feldman, Sara, Julie Freccero, and Kim Seelinger. "Safe Haven: Case Study, Colombia." *UNHCR News*. UNHCR, May 2013. Web. 18 Apr. 2016.

The authors compiled their research into charts for each shelter, in order to more easily compare their features. There were a number of patterns that emerged from the comparisons. For instance, a majority of the shelters will only accept official, registered IDPs, and most will only accept women and children, due to safety and the proportion of women seeking shelter. Typically, the capacity ranges from 20-50 people, and IDPs are supplied with food, sleeping accommodations, medical care and vocational training. These shelters are by no means permanent housing solutions. The study shows that IDPs do not stay in these shelter for a long period of time; anywhere from three days to three months is normal.

In addition to the charts, shelter residents and staff were interviewed about many specific topics. Survey participants agreed that location is crucial for a shelter's success. The exact location must be withheld for the safety of those fleeing violence and persecution. Currently, a majority of the shelters are located in the big cities, but the residents of the Pasto shelter expressed an appreciation for its remote location. They did not have to travel far from their homes to reach a safe haven, and they were persuaded to settle there once they gained financial dependence due to the inviting nature of the small city. Survey participants reflected that the shelters did not sufficiently provide medical care or education for their children. Also, residents felt that they were not prepared to return to

society after leaving the shelter, because they did not have any personal belongings or money.³⁷

2.4.2 Homeless Shelters

Recently, there has been a wave of new approaches to housing the homeless population in the United States. Models such as Housing First delve deeper into the issues behind homelessness to offer more stable housing that gives residents the tools to “rise up” from homelessness. The U.S Department of Housing and Urban Development presented its findings from a study on the Housing First approach in a report named *The Applicability of Housing First Models to Homeless Persons with Serious Mental Illness*. Congress and HUD leadership have recently sought viable solutions for permanent housing for homeless people. “Concurrently, there has been a shift toward committing a greater proportion of HUD McKinney-Vento Act funds toward housing as opposed to supportive services and an increase in attention toward the hardest-to-serve, chronically homeless population, a substantial number of whom are mentally ill.”³⁸ The Housing First model has started to gain momentum, because it addresses the hardest-to-serve populations. Housing First is so named because the shelters give people a home first, before placing other demands or questions on participants. For instance, residents are not required to stop using drugs or alcohol upon entry. They are provided with round-the-clock counseling,

³⁷ Feldman, Sara, Julie Freccero, and Kim Seelinger. "Safe Haven: Case Study, Colombia." *UNHCR News*. UNHCR, May 2013. Web. 18 Apr. 2016.

³⁸ Pearson, Carol L., Gretchen Locke, Ann E. Montgomery, and Larry Buron. "HUD USER." *The Applicability of Housing First Models to Homeless Persons with Serious Mental Illness*. U.S. Department of Housing and Urban Development Office of Policy Development and Research, July 2007. Web. 18 Apr. 2016.

social services, and medical care. Housing First residents typically live in the main building, or “safe haven” upon entry, and their length of stay is closely tied to their behavior. The program allows them to eventually move to permanent housing, which usually takes the form of apartments that the organization leases. Housing First limits the number of people that are housed in each apartment building in order to encourage community integration. Some shelters offer homeless individuals housing options that are scattered throughout a city, so they have a choice in which neighborhood they reside. The shelter aids clients in finding employment and charges them 30% of their income for rent. There is not a limit on the length of the client’s stay in the permanent housing.³⁹

The Housing First model is revolutionary for the homeless housing model, as it offers real solutions for people who want to make their lives better, but have very few resources. By allowing each client’s living situation to be behavior-based, they are motivated to better themselves to advance in the program. The community supports the shelter, which is important for the client’s reintegration into society.

³⁹ Pearson, Carol L., Gretchen Locke, Ann E. Montgomery, and Larry Buron. "HUD USER." *The Applicability of Housing First Models to Homeless Persons with Serious Mental Illness*. U.S. Department of Housing and Urban Development Office of Policy Development and Research, July 2007. Web. 18 Apr. 2016.

CHAPTER 3

PRECEDENT STUDIES

3.1 Introduction

The following precedent studies are separated into two categories: mixed use program and mobile housing, because there are two essential parts to this thesis design. The main building closely resembles a mixed-use residential building, and the independent units takes design cues from mobile housing precedents. Each precedent referenced is unique in its purpose and design goals, but they each employ useful strategies for the proposed design.

3.2 Mixed use programs

3.2.1 Moerkerke Medicare and Neighborhood Facility

The Moerkerke Medicare and Neighborhood Facility is located in the south bank of Rotterdam, a particularly run-down neighborhood. The client wanted Krill Architecture to design a community building with a program that would improve the surrounding area and provide a safe place for nearby residents.



Figure 10: Moerkerke Medicare Facility Exterior. Source: archdaily.com

The solution to the client's needs is an adaptive reuse project that accommodates two different user groups: drug users and community members. The first function is a safe haven for heavily addicted drug users, who are permitted to consume drugs in these spaces while receiving basic hygiene and health care. Here, they can escape from their daily life on the street; the purpose of the center is not to cure addicts, but to make public streets safer and to give drug users incentive to reform. Despite the good intentions of the program, the client thought a drug rehab center at the street level would be unattractive to the community. Krill Architecture combined the medicare center with a second program piece, a neighborhood foyer. Here, the community can hold meetings, practice theater, and come together for other types of public events.

The existing building consisted of two houses that are part of a row. The new structure peaks through the old building on the main façade, and it is completely visible on the other sides. The medicare and neighborhood facility are kept separate, divided by circulation cores. There are a few designated "mixing" areas that everyone can access. The staff of the medicare also have their own spaces which function as panopticons, so the user rooms are visible at all times.⁴⁰

⁴⁰ "Moerkerke Medicare And Neighborhood Facility / Krill Architecture." Arch Daily, 14 Jan. 2011. Web. 21 Apr. 2016.



Figure 11: Moerkerke Medicare Facility Interior Program. Source: archdaily.com

Krill Architecture offers an innovative solution for a community center that serves multiple functions and user groups. This precedent is an example of how program can be designed for a population similar to that of this thesis. The

facility accepts the users as they are, and it offers many incentives for staying off the street and receiving care. Similar to the thesis program, this example houses community amenities for public use. The communal areas depicted in the precedent also have been designed into the project as places where residents and community members mingle.

3.2.2 New Carver Apartments

This housing project, designed by Michael Maltzan, is located in Los Angeles, California. Its 97 units provide permanent housing for former homeless elderly and disabled residents. The ground plane is carried into the lobby of the building, and a courtyard is carved out of the middle of the form. Community spaces are located in the first level and the courtyard. These spaces include kitchens, common spaces, and medical and social service spaces. The exterior serves as a barrier to noise and outside activity, because of its sawtooth form and minimal windows. The design helps to promote growth and solace to the residents and the community.⁴¹



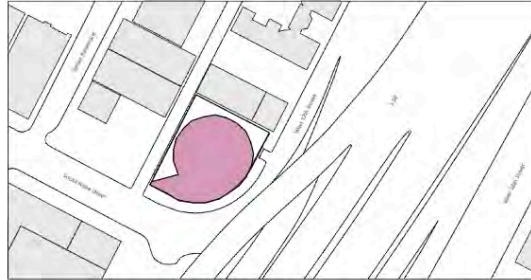
Figure 12: New Carver Apartments Exterior. Source: <http://www.mmaltzan.com>

⁴¹ "New Carver Apartments | Michael Maltzan Architecture." *New Carver Apartments | Michael Maltzan Architecture*. N.p., n.d. Web. 21 Apr. 2016.

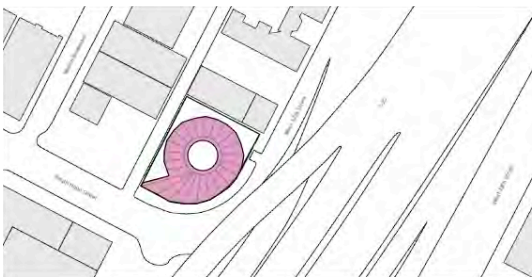
Schematic Design



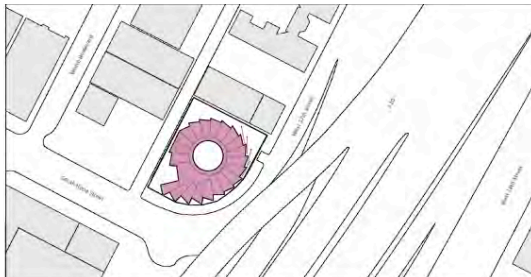
Phase 1



Phase 2



Phase 3



Phase 4

Figure 13: NCA Schematic Design. Source: <http://www.mmaltzan.com>

Phase 1: The site is square on all sides but one. The highway and the curving street below cause the site to curve.

Phase 2: As a response to the major bend in the site, the form curves all the way around the site.

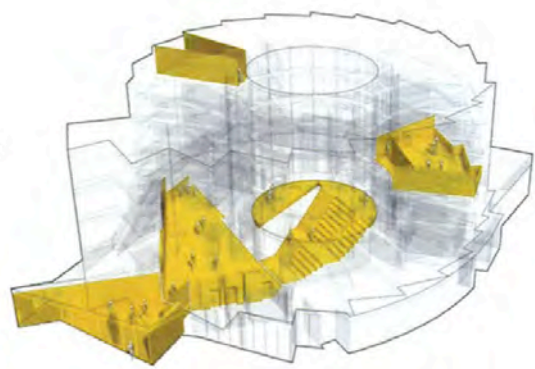
Phase 3: A core is carved out of the center of the form. This lets in daylight and provides a generous, light filled community space.

Phase 4: The rounded exterior surface is carved out to give the facade a sawtooth appearance. This helps to redirect the views from the highway to other

attractions in the city.⁴²

Figure 14: NCA Axon. Source: <http://www.mmaltzan.com>

The yellow portions in this diagram represent community spaces. They begin at the ground level as open to the public and cater to specific resident needs on the upper floors. This strategy is employed to connect the residents and the community to one another, because the lower level programs are services that both populations use.



Carver Apartments offers a useful guide for housing a population in need of support and relief from turmoil, and this goal is realized through form and function. This thesis borrowed these spatial and organizational techniques, using the form and programming of the space to provide solace to internally displaced persons, while encouraging comingling between the residents and community through public amenities.

3.3 Micro Housing and Shelters

3.3.1 SEED_Haiti

On January 12, 2010, an earthquake struck Haiti, leaving about 230,000 dead, 1.3 million homeless, and 600,000 internally displaced.⁴³ Clemson School of Architecture Associate Professor Doug Hecker and Assistant Professor Martha

⁴² "New Carver Apartments | Michael Maltzan Architecture." *New Carver Apartments | Michael Maltzan Architecture*. N.p., n.d. Web. 21 Apr. 2016.

⁴³ buildipedia.com/aec-pros/design-news/the-seed-project-at-clemson-university-safe-housing-for-haitians

Skinner worked to find a creative emergency solution for homeless and displaced Haitians, resulting in the SEED_Haiti project. SEED is an inventive solution for temporary, possibly mobile housing that can become permanent. The project has a double mission: to address the local need for adequate housing for people while solving a global problem of recycling, giving purpose to empty containers that would otherwise be discarded. Storage containers from around the world are shipped to and left in port cities, like Haiti, and Clemson University students have proposed a design project that turns them into individual housing units, housing communities, and emergency clinics. The design also includes a plan to use surplus 55-gallon steel drums for starter gardens on the roof of the container homes. Water could be filtered through the drums for use in a pod for shower, sink and composting toilet, according to a Clemson statement.⁴⁴

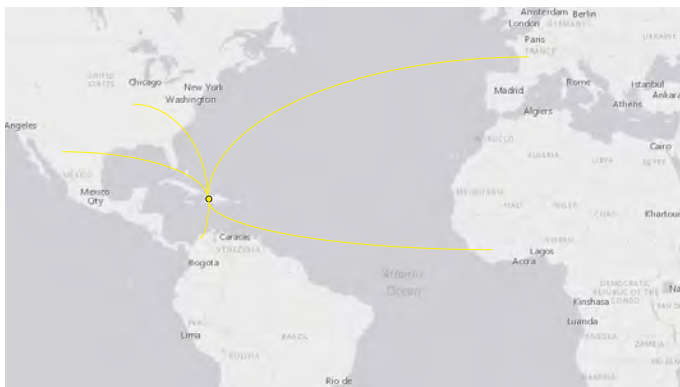


Figure 15: Shipping Containers to Haiti. Source: Author

⁴⁴ buildipedia.com/aec-pros/design-news/the-seed-project-at-clemson-university-safe-housing-for-haitians



Figure 16: SEED_Haiti. Source: buildipedia.com

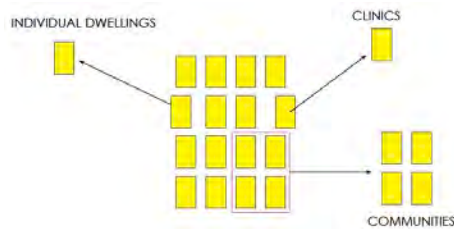


Figure 17: Diagram of Use. Source: Author

The Clemson team received a grant from the Environmental Protection Agency, EPA, and they won first place at the sixth annual National Sustainable Design Expo on the National Mall in Washington D.C.⁴⁵ The team paired up with a private firm, as well as ARUP, a British firm specializing in engineering and design consulting. According to Morey Bean, AIA, LEED AP: “So far ARUP’s conclusions are sufficiently positive to continue their participation in the project, with the aim that their environmental team will perform an energy analysis to confirm the suitability of the design’s rooftop “umbrella,” which will protect the units from the severe tropical heat.”⁴⁶ As of 2010, they built a prototype at Clemson University with plans of building another in Haiti, shortly. There have been no new developments published since this claim.

SEED_Haiti is a useful example for this thesis project, because it shows how recycled, simple structures and minimalistic spatial layouts can serve a great

⁴⁵ buildipedia.com/aec-pros/design-news/the-seed-project-at-clemson-university-safe-housing-for-haitians

⁴⁶ Ibid.

purpose for those in need. The grouping capabilities of the SEED units is practical for the proposed second and third stage of the design, because the units are place in such a way that creates community.

3.3.2 Day Labor Station

The Day Labor Station is a project designed by Liz Ogbu that worked with day laborers across the country. Thousands of people seek informal employment each day, but lack basic amenities while they wait for work. This project provides a multifunctioning sheltered space and a bathroom. The space can be adapted to be used as a meeting space or classroom. The materials used in the design are steel, wood and concrete panels.⁴⁷



Figure 18: Day Labor Station Prototype. Source: www.lizogbu.com/portfolio

⁴⁷ Ogbu, Liz. "Day Labor Station." *Liz Ogbu*. N.p., n.d. Web. 21 Apr. 2016. <http://www.lizogbu.com/portfolio_page/daylaborstation/>.



Figure 19: Day Labor Station. Source: www.lizogbu.com/portfolio

Although this project has not been built, it serves as an ideal model for simple, temporary shelters that are flexible in use. The Day Labor Station only contains essential programs required by the user, during daytime hours.⁴⁸ This design lends itself to customization, based on the installation location and scalable according to the demand for space. These qualities make this precedent a useful exploration of basic shelter, which helped to inform the design of this thesis' outpost units.

3.3.3 Rolling Huts

The Rolling Huts, designed by Olson Sundberg Kundig Allen Architects, are simple, low-impact huts that offer a very luxurious camping experience. Each hut is comprised of a steel-clad box on a wood and steel platform. The interior is finished with cork and plywood, giving the space a simple and raw feel. The interior living space is a mere 200 square feet, but the deck offers an additional 240 square feet. Each hut contains a kitchenette and flexible sleeping and living

⁴⁸ Ogbu, Liz. "Day Labor Station." *Liz Ogbu*. N.p., n.d. Web. 21 Apr. 2016. <http://www.lizogbu.com/portfolio_page/daylaborstation/>.

space, and there is a community building that is shared by all users.⁴⁹ The huts are lifted up, as they sit in a river valley; their grouping evokes feelings of both unity and solitude.



Figure 20: Rolling Huts. Source: www.olsonkundig.com

This design is a valuable study, as it explores the simple, minimal hut using raw, yet poetic material choices. These huts are primitive in some ways, but they seem luxurious and spacious. The space inside feels generous because

⁴⁹ "Rolling Huts." *OK - Olson Kundig*. N.p., n.d. Web. 21 Apr. 2016. <<http://www.olsonkundig.com/projects/rolling-huts/>>.

the furniture is very versatile. The wood blocks can be stored away under the bed platform, or deployed as a table, bed or seating. The design provides plenty of privacy, while still allowing light to flood the space. The lofted ceilings also aid in making the space feel much larger.⁵⁰ These qualities and strategies were insightful for each of this thesis' three designs. The outpost was designed to have space that is private, yet filled with light. The main shelter's dorms contain multipurpose furniture to provide flexibility to the spaces. The last phase of the program employs a combination of all of these strategies.

3.4 Precedent Study Conclusion

These precedent studies contain many useful strategies for each portion of the design project. In terms of the main building that will house residents and community program, New Carver Apartments and Moerkerke Medicare and Neighborhood Facility take different, yet insightful, approaches to programming spaces used by multiple, distinctive use groups. They are also designed for users who are difficult to serve, such as homelessness or drug addiction. These populations have needs similar to those of Colombia's internally displaced people. Rolling Huts and SEED_Haiti relate to this thesis' program, as part of it includes micro dwellings. The examples are different in terms of material choices and user groups, but they each have the potential to house one individual, a group, or a community, just as the units in this thesis.

⁵⁰ "Rolling Huts." *OK - Olson Kundig*. N.p., n.d. Web. 21 Apr. 2016. <<http://www.olsonkundig.com/projects/rolling-huts/>>.

CHAPTER 4

DESIGN PROCESS

4.1 Site Selection

The UNCHR highlighted Cauca and Valle de Cauca as the areas that are most heavily affected by violence, producing the highest numbers of IDPs. The map below shows these areas, along with additional rural areas from which IDPs flee. Popayan is located in Cauca, in between rural and urban areas of Colombia. It is a secluded, developed city that has low levels of violence, thus making it an ideal location for an IDP shelter.



Figure 21: Colombia IDP Regions Source: UNHCR



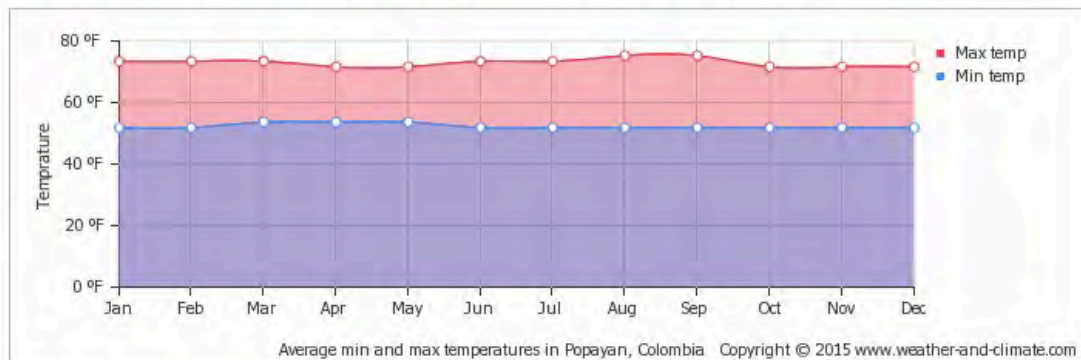
Figure 22. Map of Valle Del Cauca. Source
worldatlas.com

Popayan is the capital of the Cauca Department of the Republic of Colombia, with an estimated population of 270,000 in the urban areas. The

climate is temperate year round, with an average temperature of 66 degrees Fahrenheit. Popayan has a considerably wet climate, receiving an average of 100 inches of rain per year.⁵¹

AVERAGE MINIMUM AND MAXIMUM TEMPERATURE OVER THE YEAR

The monthly mean minimum and maximum daily temperature. Show in [Celcius](#) »



AVERAGE MONTHLY PRECIPITATION OVER THE YEAR (RAINFALL, SNOW)

This is the mean monthly precipitation, including rain, snow, hail etc. Show in [Millimeter](#) »

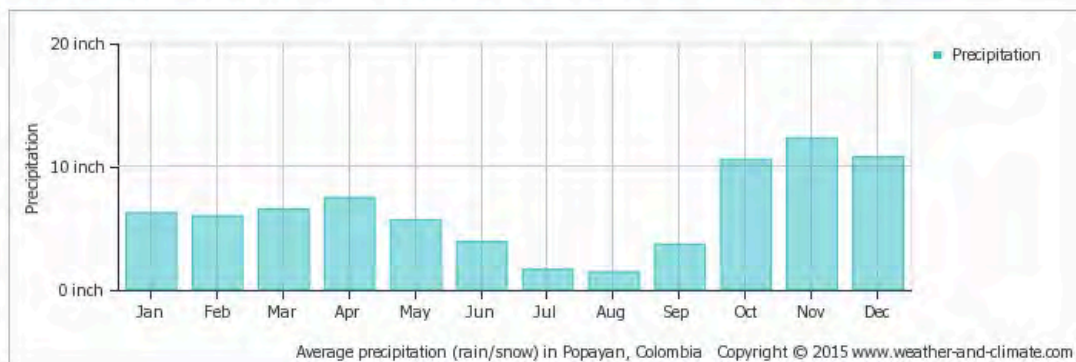


Figure 23. Popayan Climate Maps. Source worldatlas.com

The city is located on the Romeral Fault, which crosses the country from south to north in the Andes, resulting in high seismic activity and several

⁵¹ "Colombia History Timeline." *Colombia Time Line Chronological Timetable of Events*. World Atlas, n.d. Web. 21 Apr. 2016.

earthquakes throughout its history. Due to the Spanish rule in the 1500's, Popayan was nicknamed the White City after its white colonial architecture.

4.2 Concept and Program

4.2.1 Introduction

This thesis is a design proposal for the housing of internally displaced people in Colombia. In order to design a solution for IDPs, it is important to fully understand the background, struggles, and needs of this specific population. I also researched many similar projects and programs that offer innovative housing to populations in difficult situations. This has equipped me with the tools to design successfully for my intended users.

The primary goal of the project is to provide IDPs with a safe haven that equips them with the tools they need to develop skills and become more independent. IDPs from all over Colombia have been subjected to violence and abuse. Once IDPs have fled from their homes to new destinations, they are devalued by society because of their inability to contribute to the community and economy. It is crucial that this project offers IDPs a secure environment in which they can flourish and work to reenter society, breaking the cycle of homelessness and unrest.

4.2.2 System: Collector, Hive, and Colony

The proposed architectural response is comprised of three elements that function as part of a tiered system for supportive housing: the collector, the hive,

and the colony. The Collectors are outposts on the outskirts of town that offer IDPs with shelter and basic needs for one day. The Hive is the main shelter, where IDPs are brought to live in a community and develop life skills. The Colonies are small branches of the hive that offer more independent communities, occupying infill locations within Popayan and colonizing the urban edge. Each IDP follows the same three steps in the program, but on their own schedules. After the resident goes from the Collector to Hive and Hive to Colony, they have options for more independent living. They can stay in the Colony, or they can move back home or to a new apartment.

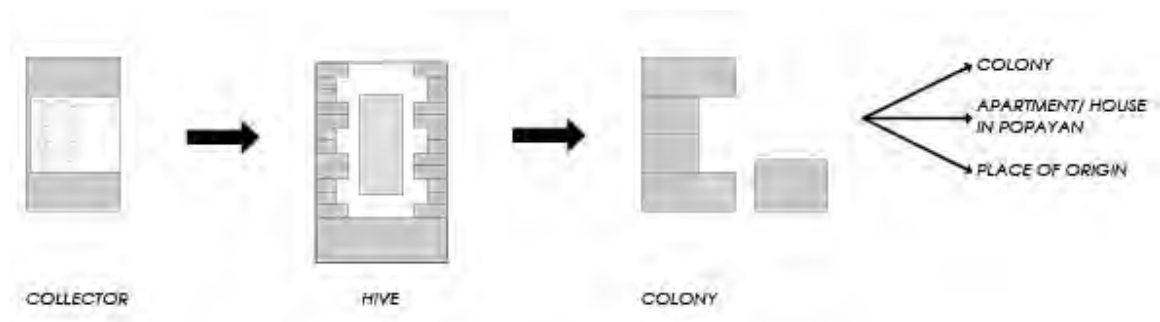
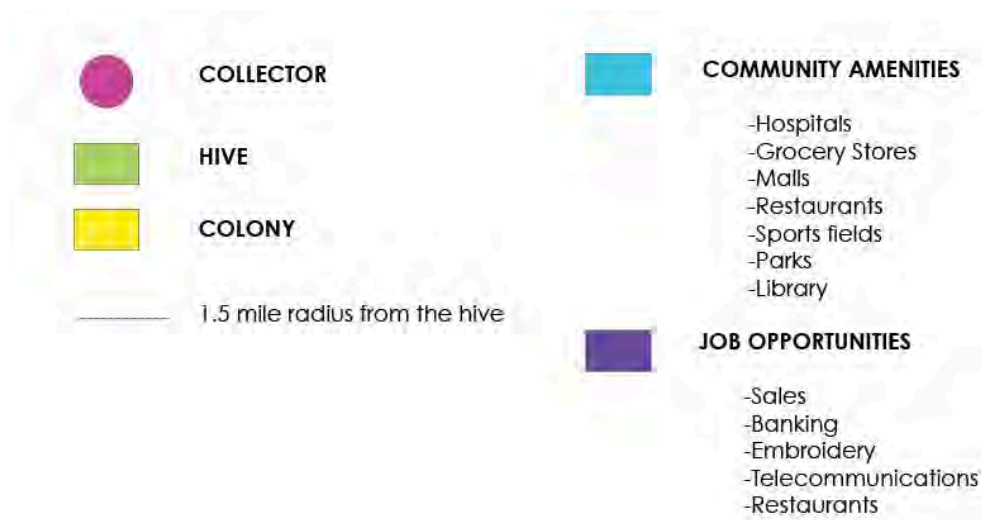


Figure 24. Diagram of System: Author

The Hive and Colonies are located within a network of community amenities and job opportunities. The map and key below illustrate each element's location and proximity to one another.

Figure 25. Map of System: Author



4.2.3 Sample Families

The following stories are fictional biographies that depict realistic family dynamics and situations, based on research on Colombia's culture and social constructs. The photographs were sourced from UNCHR's webpage, and their names were changed to conceal identities. The design intent of the housing is to accommodate the needs of families of many sizes and make-ups.



Figure 26. Colombian Family 1. Source: UNHCR, edited by author

Sara and Laura are mother and daughter, 23 and 44, left their tribe in Guapi because a flood destroyed much of their town. The women were very sad to leave their community, but

the disaster had done too much

damage. Sara is a single mother who lived with her mother, Laura, because it was their custom and for additional support. Both of the women love to cook, so they are hoping to find work in a kitchen after they move. Sara will need to find a safe place for her children to receive education.



Figure 27. Colombian Family 2. Source: UNHCR, edited by author

Sofia is a 30-year old mother of two young children. She left her home in Pasto because the guerilla violence was putting her and the children's lives at risk. She and her husband owned a large farm, before

militants killed him. Now, she must find a way to provide for her family with the skills she has. Sofia is very talented at sewing and embroidery. Her children also need basic education in a safe environment.



Figure 28. Colombian Family 3. Source: UNHCR, edited by author

Camila is a 15-year old girl from Buenaventura. She lives on her own with a 1-year old child. She left her home to escape sexual abuse and violence.

Camila has not been to school for two years, as she was afraid to leave her

home. She and her baby are in need of a shelter that can provide safety, along with food and education.

4.3 Design and Analysis

4.3.1 Case Study: Camila's Journey

In order to describe the three elements of this design and their relationships, documentation of Camila's journey from the beginning to the point at which she reintegrates into society will supplement the explanation of each design.

4.3.1.1 Collector



Elapsed Time: 12 hours

On May 4th, Camila and her daughter took a bus from Buenaventura, hoping to flee from sexual abuse and settle in Medellin. In the evening, the bus

stopped in Popayan, and Camila noticed a shelter, a Collector, next to the bus station where people were lining up outside and waiting on benches inside.



Figure 19. Collector Perspective. Source: Author

******The Collectors are outposts located near bus stops on the outskirts of Popayan. They provide shelter and resources to IDPs travelling to the city. The outposts have been located at four crucial points in the city, where main roads come into town. In order to keep the location of the shelter low-key and to reach more people in need, the Collectors are located in key areas on the outskirts of Popayan that intercept IDPs travelling to big cities. The maps below shows the locations of the Collectors, indicated with pink dots. They are along heavily travelled routes from rural to urban areas. The green square marks the location of the hive.



Figure 30. Map of System. Source: Author



Figure 31. Zoom Map of System. Source: Author



Figure 32. Collector Site surroundings. Source: Author

Camila walked over to the Collector and discovered that other IDPs, like herself, were waiting to receive identification papers and first aid from staff members. She was not yet registered as an IDP and her daughter did not have a birth certificate. She waited in line so that she could be helped, as well. Once it was her turn, the staff member explained to her that the shelter was a part of Open Arms Safe Haven for Internally Displaced Women and Children. She explained to Camila that she and her daughter were welcome to wait for a shuttle, which would take them to the main shelter, or the Hive.

**Each of the four Collectors accommodates two staff members and up to fifteen IDPs. The Collector is outfitted with basic amenities such as a kitchenette, a first aid area and seating. After identifying passersby as IDPs, officially registered or not, they will be offered food and temporary shelter for no more than 24 hours. The Collector also serves the community, as it will accommodate non-IDP visitors and offer them supplies.

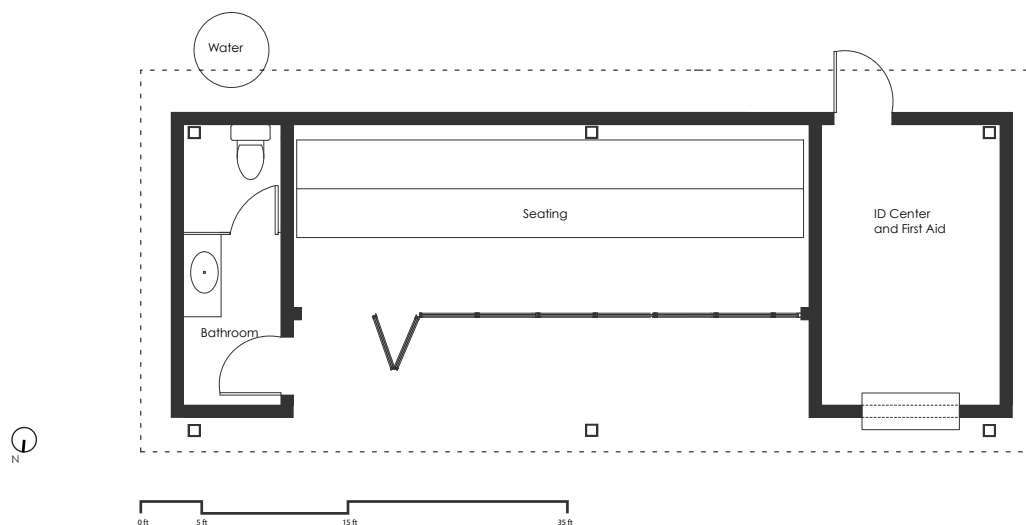


Figure 33. Collector Plan. Source: Author

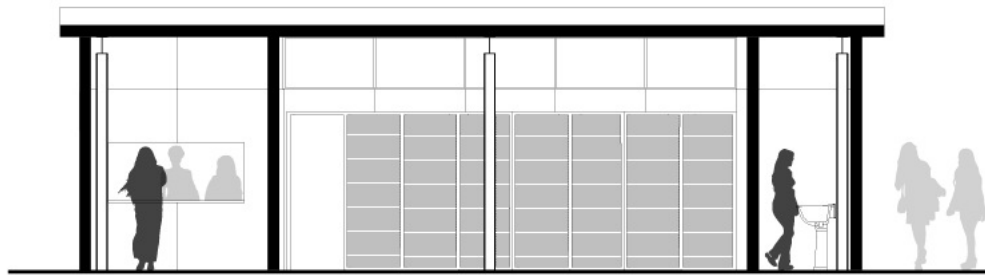
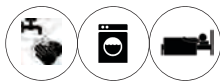


Figure 34. Collector Section. Source: Author

4.3.1.2 Hive



Camila and her daughter were dropped off at the main IDP shelter, the Hive. They checked in at the front desk, and a staff member led them to the hygiene center. Camila had lice and had not showered or washed her clothes in a week. Once they cleaned themselves up, they received fresh clothes and a bunk to sleep in over night.

** The concept for the design of the main shelter, or Hive is based on the structure of a beehive, as they are characterized by a protective layer and bustling activity inside. It is important to the success of the program for the environment to feel open, yet secure.

Residents have access to the most necessary community amenities within the building, and the surrounding community has complimentary amenities, such as hospitals, grocery stores, sports fields, and restaurants. The maps in figures 35 and 36 show the site's location in relation to the city of Popayan. The location was selected because of its walking proximity to amenities and schools that the

residents can utilize. The blue and purple dots represent job opportunities and community amenities, and the yellow represent the Colonies.



Figure 35. Collector Plan. Source: Author



Figure 36. Zoom Map of System. Source: Author

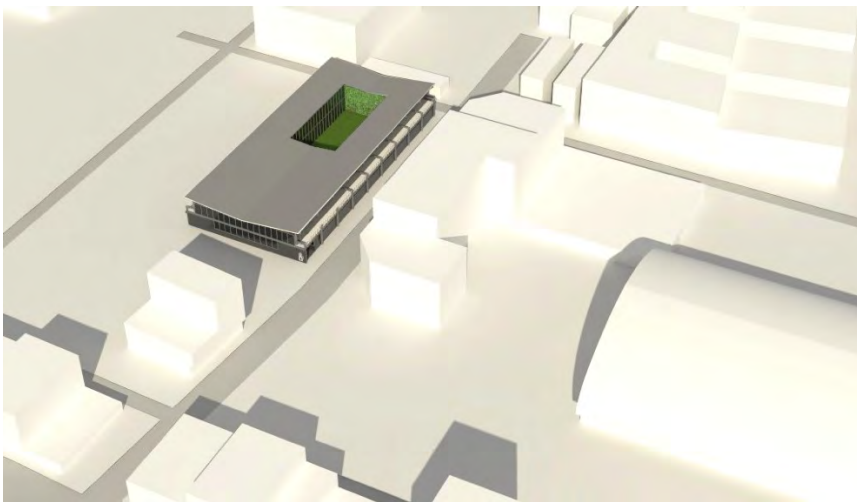


Figure 37. Exterior Hive Axon. Source: Author



On the second day, Camila was assigned a dorm room. The staff gave her a tour of the rest of the facility. She learned that the residents share kitchens, bathrooms, and laundry. They can also take advantage of the courtyard and

garden, cafeteria, daycare, job training, classrooms, and a chapel. Camila later met her dorm neighbors and slowly started to adjust to the new hive community. She also met with staff to talk about her future in the shelter and her goals.

**Each dorm room consists of only basic living quarters. There are 48 units total: 24 family units at 150 square feet units each and 24 single units at 80 square feet. Family dorms can accommodate one to four people and the single units accommodate one to two people. The rooms contain a shelving unit and versatile block furniture that transitions by separating and joining the pieces. The diagrams below illustrate three possible furniture arrangements: one bed, two beds, and one bed and seating.

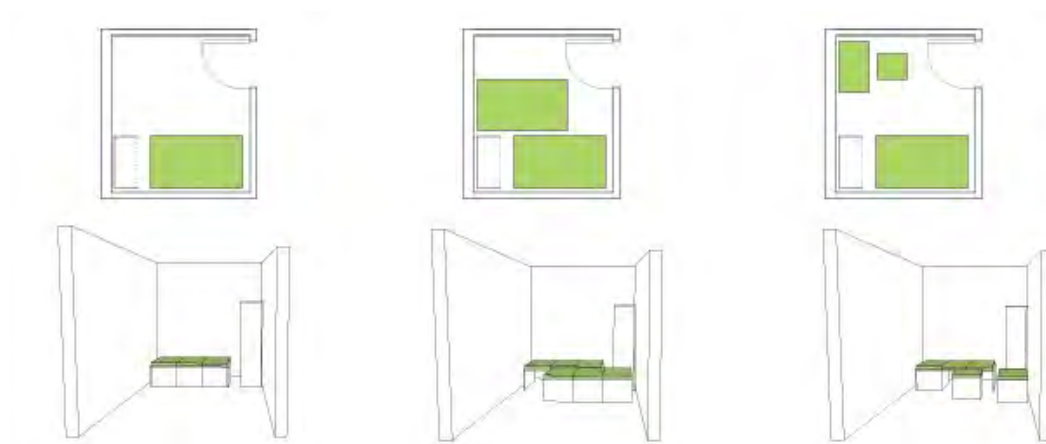


Figure 38. Hive Dorm Layouts .Source: Author

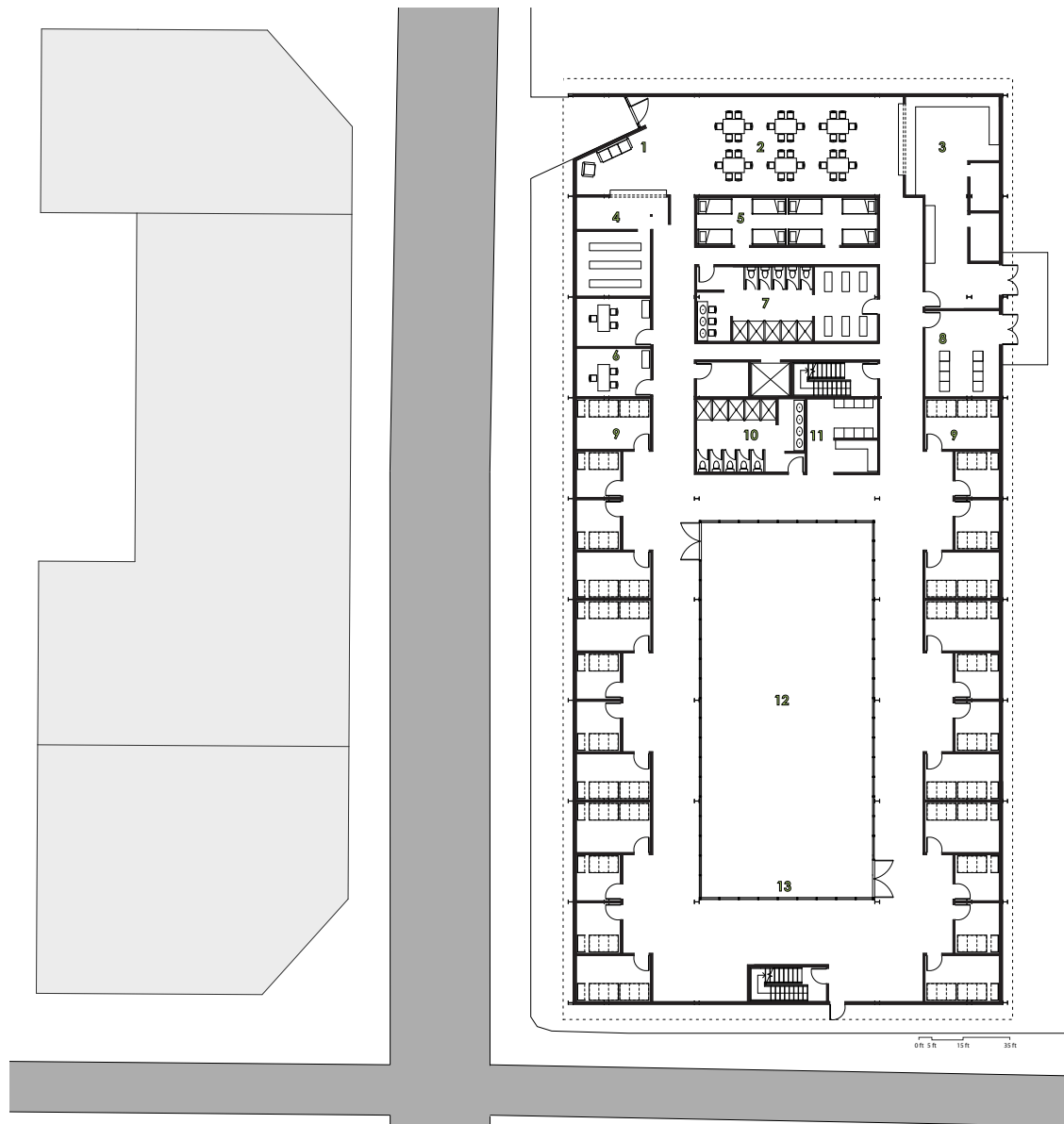


Figure 39. Hive First Floor Plan: Source Author

KEY

- | | | |
|-------------------|-------------------------|------------------|
| 1. ENTRY | 8. LAUNDRY | 14. BALCONY |
| 2. MULTIPURPOSE | 9. DORMS | 15. CHAPEL |
| 3. CAFETERIA | 10. BATHROOM | 16. JOB TRAINING |
| 4. ADMINISTRATION | 11. LAUNDRY AND KITCHEN | 17. COMPUTERS |
| 5. BUNKS | 12. COURTYARD | 18. LOUNGE |
| 6. OFFICES | 13. GARDEN | 19. DAYCARE |
| 7. HYGIENE CENTER | | 20. CLASSROOM |

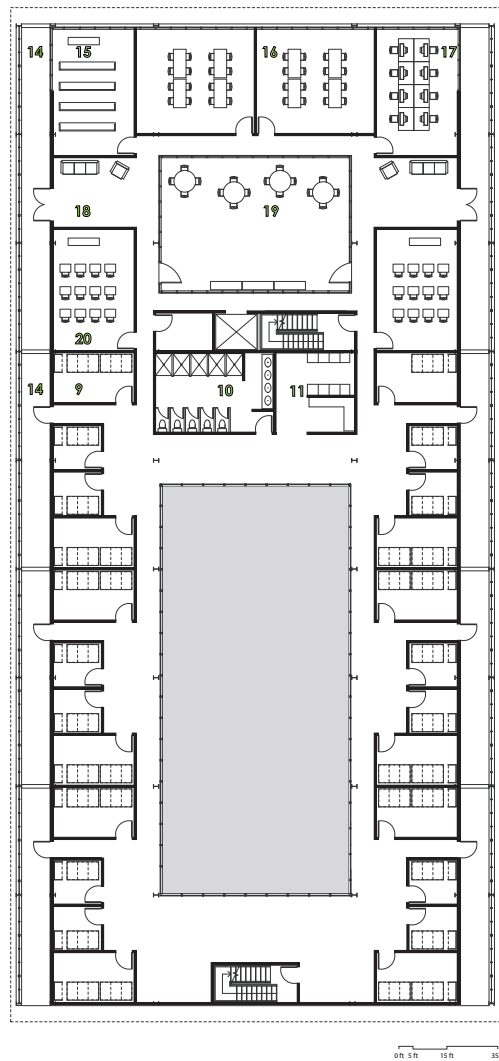


Figure 40. Hive Second Floor Plan. Source: Author



Figure 41. Interior Hive. Source: Author



After about two weeks, Camila adjusted to her new life and was ready to start attending classes in the Hive. The daycare watched her daughter while she learned math and writing. Camila also took computer classes in order to find a job. Due to the fact that she came from a tribe in rural Colombia, she did not speak the same dialect of Spanish as Popayan natives. It was crucial that she took language classes before finding a job.



Two months after her arrival, the staff helped Camila find a job as a secretary at a dentist office in town. For added safety, the shuttle took her to and from her job each day, until she felt secure enough to walk. Camila started paying rent for her dorm, since she was now earning money. In order to help her save money, the shelter only required 20% of her income for rent.

4.3.1.3 Colony



After working at her new job for seven months, Camila was ready to move into a larger, more independent home, but not quite ready to live on her own. She decided to sign a one-year lease for a subsidized unit in a pre-built Colony settlement, which is operated by Open Arms Safe Haven for Internally Displaced Women and Children.

**Popayan has not fully rebuilt since its last earthquake, and there are many vacant land parcels throughout the city. The map below shows the open lots that exist within a half-mile walking radius of the hive. When a resident is ready to move out of the hive, they chose the colony location in which they would like to live. Just as the dorms in the hive, the units are very basic, yet adequate. There are two 130 square feet units for single residents and two 200 square feet units for families of two to four. The units are located within a half-mile of the hive so they can return there for work and to take advantage of the amenities offered.



Figure 42. Zoom Map of System. Source: Author

The photos below are examples of empty lots that will receive the units.



Figure 43. Colony Sites. Source: Author



Figure 44. Colony Exterior. Source: Author

**Each colony has living units and a community building, enclosed by one or two walls for added security. Residents no longer have the protection of the Hive, so this wall serves as a layer of protection from the outside. The community building contains bathrooms, a kitchen and dining area. There is a yard for activities, as well.

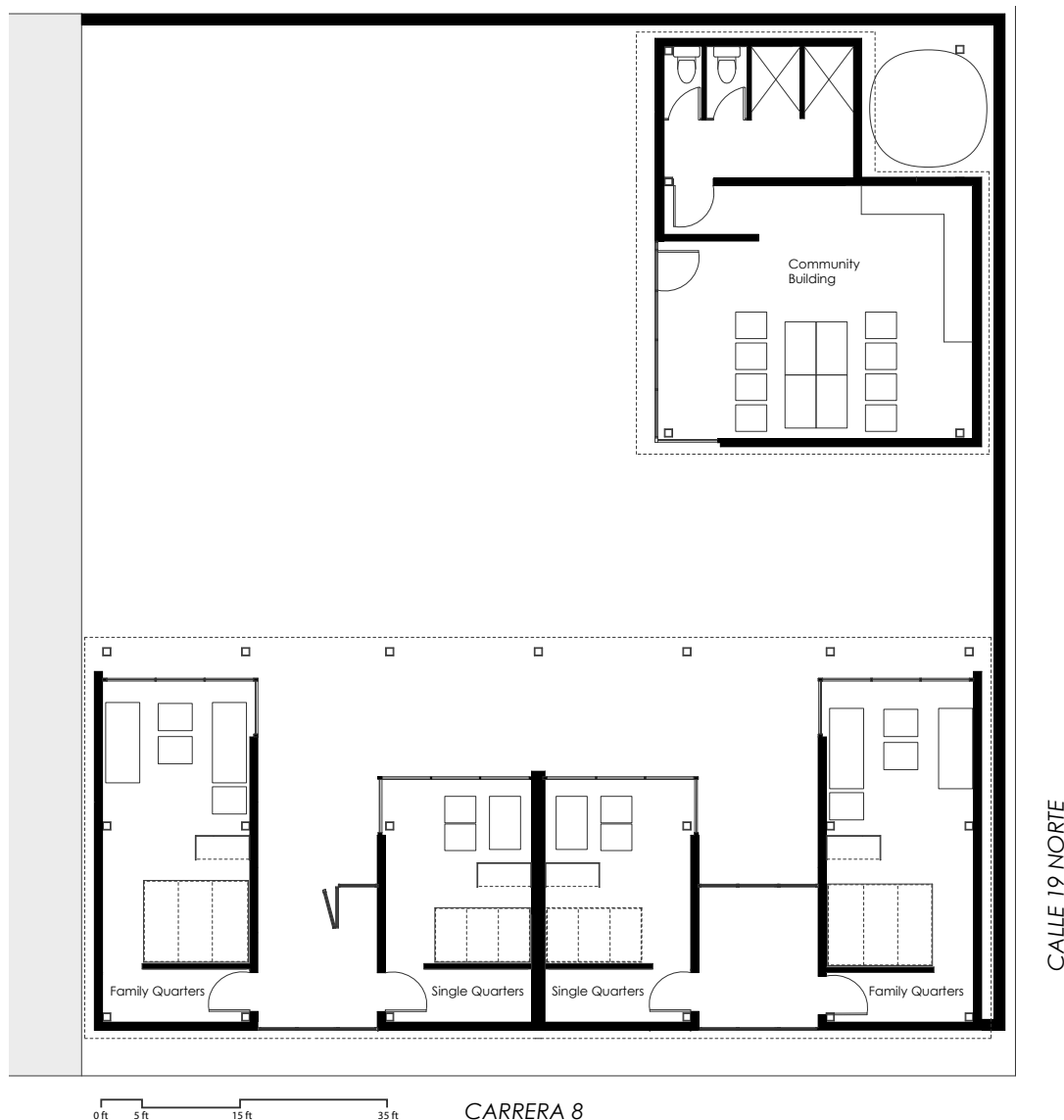


Figure 45. Colony Plan. Source: Author



Figure 46. Colony Interior. Source: Author

**Just as the Hive dorms, the units and the common dining space have versatile block furniture that can transform the space for a specific use. Diagrams below illustrate this concept in a unit.

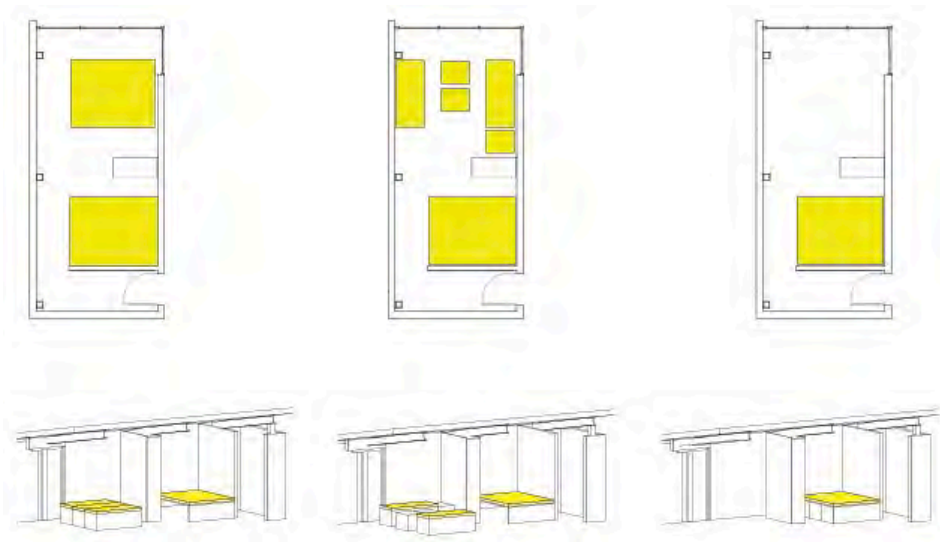


Figure 47. Colony Unit Layouts .Source: Author



During her one-year lease, Camila developed many valuable life skills. The families who were introduced in the previous chapters also settled from the Hive into this community, as they had all formed a bond while living in the Hive. Camila is a young mother, so the women taught her many important things that she had not learned, because she did not have role models in her hometown. All of the women cooked and ate meals together, while their children played in the yard. When they worked, the shuttle brought their children to the hive for daycare. After living in the Colony for one year, Camila decided to search for an apartment in the city of Popayan.

4.3.2 Materials and Construction

Each design within the system was intended to respond to its respective program, while still carrying architectural elements, which identify each as part of a larger framework. The ways in which this is achieved is through the use of style, building materials, and signage. The buildings are built using the same materials. Steel is used for framing, as it is commonly used local. Popayan is a considerably modern city, in terms of architecture, because they have rebuilt since the earthquakes a few decades ago. Cement board SIPs are used for cladding, as this material speeds up assembly time and is low maintenance. The roof is made with metal SIPs for the same reasons. Colombia has a bounty of local bamboo available, so it is used for privacy screens and furniture. Colombian oak is used for flooring.

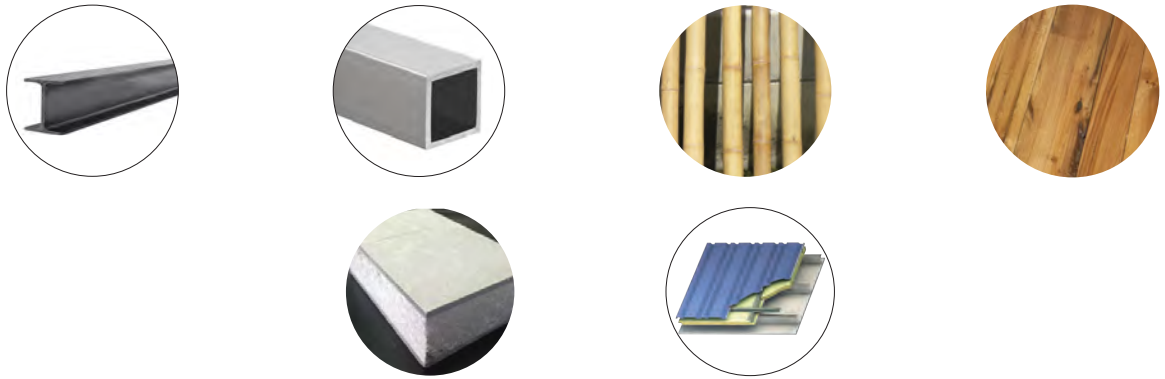


Figure 48. Building Materials .Source: Author

Each building responds to the environment by taking advantage of solar heat gain, natural ventilation, and water capture. The highest proportions of glazing are oriented toward the North in order to receive the most sunlight. Popayan's average high temperature does not exceed 24 degrees Celsius, or 75 degrees Fahrenheit year-round, so heat gain is needed for comfort. Operable windows and exterior bamboo screens provide fresh outside air and cool the spaces. Popayan is a considerably wet area, so the buildings reuse rainwater for their facilities. The diagram below shows how the Hive design responds to the environment.

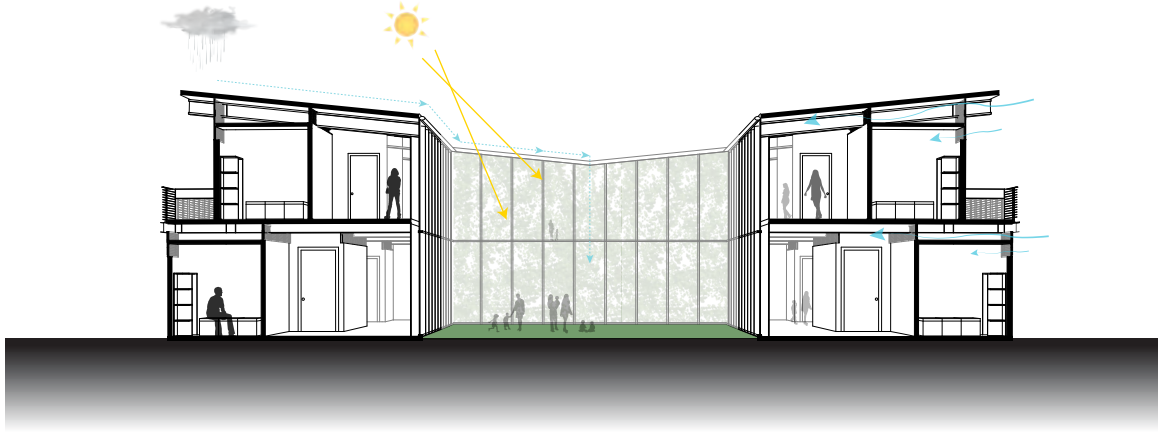


Figure 49. Hive Section. Source: Author

Descriptive signage for a shelter for people in danger, such as Open Arms Safe Haven for Internally Displaced Women and Children, is an unnecessary risk because it may attract dangerous visitors. Instead, each building has a matching sign that symbolizes family safe haven. This sign serves as a beacon for IDPs searching for safety.



Figure 50. Shelter Signage .Source: Author

4.4 Conclusion

This thesis explored the struggles and needs of internally displaced women and children in Colombia. The primary goal of the project is to provide IDPs with a safe haven where they can build communities and life skills, eventually regaining their independence and reintegrating into society. At each step of the project, there is a careful balance of safety, community and independence, which ultimately leads to successful reintegration.

The program at Open Arms Safe Haven for Internally Displaced Women and Children is structured and supportive; each IDP begins their journey at the Collector and starts to build relationships with the staff and other IDPs. Here, IDPs are very safe and dependent on staff for basic needs, such as protection, food and water. The IDPS move to the Hive and have access to basic living quarters, health and community amenities, and job training. The arrangement of the dorms allows for more intimate interactions, while the large common spaces and training programs facilitate community building. These common spaces are characterized by transparency, creating a sense of safety. The residents start to gain more independence in the Hive, as they set personal goals and live on their own schedules. The next stage of the program involves the IDPs moving to a subsidized unit in a pre-built Colony settlement. The Colonies are located within close proximity to the Hive, yet far enough to be recognized as a stand-alone community. IDPs gain momentum and independence living in these satellite locations, but they are still able to depend on the Shelter for assistance. The

walls surrounding the units provide safety, as there are no staff members on-site. The Colony design continues to facilitate community, as the residents share a yard, kitchen, and bathroom. The final step in the process is each IDP's decision to stay in the Colony, move home, or move into a local apartment.

The UNCHR expressed a concern for their assistance deficit, due to limited resources in terms of shelters and funds. A table of figures for December 2015 shows there were 5,840,590 IDPs in Colombia, yet UNHCR was only assisting 410,400 of the population.⁵² This thesis aims to address this problem with a housing solution that grows, over time. The Colonies occupy open lots within the city of Popayan. There are about 50 open lots that could each accommodate 4 to 7 sleeping units and one community building. As the few pre-built communities are filled at the start of the program, the residents help the Shelter build more Colonies in the other open lots.

This thesis offers a housing solution for people seeking to re-enter society in a progressive, dignified manner. Internal displacement and refugee situations are an issue, worldwide, and the ideas presented in this thesis could be applied to many conditions in which safety and community are the primary needs of a population.

⁵² "Colombia." *UNHCR News*. N.p., n.d. Web. 21 Apr. 2016. <<http://www.unhcr.org/pages/49e492ad6.html>>.

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